

**International Workshop to Promote Best Practices on
Consumer Electronics Standards and Labeling Programs from
Asia Pacific Partnership Countries**

Jointly Organized by

Bureau of Energy Efficiency (BEE)

**Collaborative Labeling and Appliance Standards Program
(CLASP)**

&

ICF International

**10th & 11th March, 2011, Hotel Le Meridien,
New Delhi, India**

Background of the Project “Mitigating Climate Change via Implementation of India’s Energy Efficiency Standards and Labeling Program”:

The Asia-Pacific Partnership on Clean Development and Climate (APP) is an innovative effort to accelerate the development and deployment of clean energy technologies. The founding partners Australia, China, India, Japan, the Republic of Korea, the United States of America and Canada have agreed to work together and with private sector partners to meet goals for energy security, national air pollution reduction, and climate change in ways that promote sustainable economic growth and poverty reduction. The APP Partners have approved eight public and private sector task forces, including the Buildings and Appliances Task Force (BATF).

As part of the BATF initiative, a market transformation project has been established to promote information sharing and technical cooperation in programs to increase market diffusion of energy efficient products. The overarching objective of these activities is to support measures in partner countries to transform the markets for energy consuming products towards those that are more efficient, leading to rapid market penetration and prominence of energy efficiency in future product development and sales in key markets.

Through this initiative, the Collaborative Labeling and Appliance Standards Program (CLASP) implemented an ongoing project funded by the US Department of State (DOS)

entitled “Mitigating Climate Change via Implementation of India’s Energy Efficiency Standards and Labeling Program” in partnership with the Bureau of Energy Efficiency (BEE). One of the goals of the project is to build upon existing initiatives in India to promote the cost effective adoption and implementation of energy efficiency standards and labels (S&L) for computers and office equipments, as well as to continue supporting BEE in the implementation of labelling programs for colour televisions (CTVs) and set top boxes (STB).

Purpose of the workshop:

The objective of the workshop is to support the ongoing work of the Bureau of Energy Efficiency (BEE) and its mandate to implement a comprehensive standards and labeling program. The primary purpose of workshop is to assist BEE in identifying the best practices that are being adopted by APP countries for establishing standards and labeling program for consumer electronics. The presentation and discussion of experiences of the APP member countries will serve as an important input for the development of standards and labeling program for various consumer electronics and ICT equipments and appliances.

Indian Situation:

The economic growth in India has accelerated the consumption of home appliances and consumer electronics in residential and commercial sectors. More specifically, the consumer electronics market dominates the electronics industry with around 34% market share and has benefited from a large and expanding market for products that are directly consumed by end-users, such as televisions, VCD/MP3 players, and microwave ovens each having a large manufacturing base. As a result, the electricity demand in the Indian residential and commercial sectors is growing rapidly. In 2005 the electricity demand from residential and commercial sectors accounted for approximately one third of the total electricity demand in India.

To respond to the growth of electricity demand, India has implemented Energy Conservation Act 2001 and Electricity Act 2003. The objective of these policies is to promote infrastructure development and reduction of energy consumption and associated Green House Gas (GHG) emissions. However, efforts to implement strategies under these policies have been hindered by several barriers such as small size/scale of operations in local manufacturing plants, the presence of a fragmented market for these products, inadequate infrastructure, high finance costs, and high rate of technological obsolescence.

Summary of the Standards & Labeling Program in India:

The Government of India set up the Bureau of Energy Efficiency (BEE) (<http://www.bee-india.nic.in>) on 1st March 2002 under the provisions of the Energy Conservation Act, 2001 with the objective to assist in developing policies and strategies with a thrust on

self-regulation and market principles such as Standards and Labeling (S&L) programs for appliances and equipment.

BEE has since then initiated S&L program in India. In May 2006, the comparative labeling scheme was launched on voluntary basis by the Honourable Minister of Power and is currently invoked for the following equipments/appliances: Frost Free (No-Frost) refrigerators, Tubular Fluorescent Lamps, Room Air Conditioners, Direct Cool Refrigerators, Distribution Transformers, Induction Motors, Pump Sets, Ceiling Fans, LPG, Electric Geysers, Color Televisions and Washing Machines. Since January 2010, the S&L program for Refrigerators, Room Air Conditioners, Tubular Fluorescent Lamps and Distribution Transformers has been made mandatory¹.

In India, all energy-consuming products in households are candidates for a standards and labeling policy. However, setting up energy efficiency regulations and designing a comprehensive labeling program requires considerable financial and managerial resources. Because of this, it is not possible to develop labels and standards for all household products at the same time. Therefore it is necessary to establish screening criteria to prioritize the end products based on which regulations would have the most impact in the form of reducing energy demand and CO₂ emissions. At the same time the regulations are easy and practical to design and implement from a market perspective.

Usually BEE identifies and prioritizes the appliances and equipments for the development of an energy efficiency S&L program based on the common use of the product, the high energy intensity of the selected equipment and/or the appliance, the significant impact of the product on total energy demand, the contribution to the peak demand, the high market penetration and the existence of high potential for energy efficiency improvement. As a next step BEE establishes stakeholder committees (Steering and Technical) for each selected equipment or appliance. These committees comprise of professionals from government organizations, manufacturers, their associations, research and testing institutions, technical experts and consumer organizations.

In November 2008, BEE launched the voluntary **Comparative Labeling** for color televisions and developed 1-5 star rating equation describing energy consumption thresholds for CRT, LCD and Plasma categories of color televisions. In this program, BEE has considered both Active and Standby modes of TVs² while deciding the criteria for labeling. To date almost all major manufacturers in India such as LG electronics, Samsung Electronics, Videocon, Onida, Panasonic and Philips have already enrolled in the program.

¹ BEE has adopted a unique approach to implement standards and labeling program in India. Here the standards are combined with labeling thresholds therefore, the energy consumption threshold of minimum star (1 star) label is considered as the MEPS.

² The program only considers for labeling those models which have standby mode power consumption greater than 5W (till December 2009) and 1W (from January 2010)

More recently, BEE started a process to introduce an **Endorsement Label** for consumer electronics and office automation products. The endorsement label indicates that the product is among the most energy efficient models available in the market. The label further provides a seal of approval indicating that a product meets certain specified criteria. The purpose of endorsement labeling is to indicate clearly to the consumer that the labeled product saves energy compared to other similar products in the market. These labels are generally based on a “Yes-No” cut-off i.e., they indicate that a product uses more or less energy than a specified threshold, and offer little additional information. Based on international experience, typically, endorsement labels are applied to the top tier (e.g., the top 15 to 25%) of energy efficient products in a market.

The successful implementation of a standards and labeling program that achieves maximum energy savings in a cost effective manner requires a significant period of time³ given the large number of stakeholders involved in this process. For setting effective standards and labeling programs, whether mandatory or voluntary, which are accepted in the marketplace, program implementers must communicate with all stakeholders – industry, retailers, and consumers.

Some of the key stakeholders can be identified as product manufacturers and manufacturers’ associations (Consumer Electronics and Alliances Manufacturing Associations (CEAMA), Manufacturers’ Association for Information Technology (MAIT) etc), consumer organizations (Voice, Consumer Education Centre (CEC) etc), Bureau of India Standards (BIS), independent testing laboratories (Electronics Regional Test Laboratory (ERTL), Intertek, Underwriters Laboratories etc) and international organizations (CLASP, ICF etc).

As per the BEE, in the year 2009–10 alone, India’s S&L program has resulted in electricity savings of 4350 millions units, equivalent to avoided capacity generation of 2179 MW.

Table 1: Energy Savings and Avoided Capacity Generation by Standards and Labeling Program⁴

Standards & Labeling Program (Year)	Electricity Saved (MUs)	Avoided Capacity (MW)
S & L Program in 2009–10	4350	2,179
S & L Program in 2008–09	2106	599
S & L Program in 2007–08	1425.8	260.4

³ The timeframe for the successful implementation of S&L programs (mandatory or voluntary) for any product depends on several factors including complexity of the product performance, specification, data availability etc. The Indian experience shows that it can range from 1 to 4 years.

⁴ Verified Energy Savings Related with the Activities of “Bureau of Energy Efficiency” for the year 2007-08, 2008-09 and 2000-10 published by Bureau of Energy Efficiency

Expected Outcomes of the Workshop:

The workshop seeks to provide an opportunity to share experiences and lessons learned from standards and labeling programs across seven Asia Pacific Partnership (APP) countries. The deliberations will provide assistance to the Indian policymakers in their efforts of establishing standards and labeling program for consumer electronics and office automation products. The workshop also seeks to bring together major program stakeholders for discussing and debating of industry and market issues and how those can be overcome by innovative policy framework. Some of the expected outcomes of the workshop are:

- A review and analysis of good practices and lessons learned from standards and labeling programs in other APP countries
- A comprehensive understanding of current standards and labeling program in India and interventions required to create a larger market transformation of energy efficient appliances
- Identification of major stakeholders and their roles and responsibilities in promotion and development of standards and labeling program for consumer electronics and office automation products
- Recommendations to develop a road map or action plan for further strengthening and binding of the program

Structure of the Workshop:

The first day of the workshop shall be devoted to presentations and discussions on best practices that have been adopted by APP countries. The second day shall be devoted to the presentations on Indian examples and discussions with industry stakeholders. This shall be followed by a roundtable brainstorming and working session during the second half with select stakeholders, government officials and experts in the field. The outcome of the roundtable will serve as the recommendations to BEE for promotion and development of energy efficiency standards and labeling program in India.

Asia Pacific Partnership (APP)

The Asia-Pacific Partnership on Clean Development and Climate is an innovative new effort to accelerate the development and deployment of clean energy technologies. Founding partners Australia, China, India, Japan, Republic of Korea and the United States have agreed to work together and with private sector partners to meet goals for energy security, national air pollution reduction and climate change in ways that promote sustainable economic growth and poverty reduction. The APP partners have approved eight public-private sector task forces covering including the Building and Appliances Task Force (BATF). The overall goals of APP BATF are:

- Use cooperative mechanisms to support the further uptake of increasingly more energy efficient appliances, recognizing that extensive cooperative action is already occurring between partner countries.
- Promote best practices and demonstrate technologies and building design principles to increase energy efficiency in building materials in new and exiting building.
- Support the integration of appropriate mechanisms to increase the uptake of energy efficient buildings and appliances into broader national efforts that support sustainable development, increase energy security and reduce environmental practices.
- Systematically identify and respond to the range of barriers that limit the implementation of end use.

As part of the BATF initiative, a market transformation project has been established to promote information sharing and technical cooperation in programs to increase market diffusion of energy efficient products.

The APP workshop to “Promote Best Practices on Consumer Electronics Standards and Labeling Programs from Asia Pacific Partnership Countries” would focus on information exchange, development of consensus on best practices and in-depth discussion of the potential of adoption of these practices to support promotion and development of India’s standards and labeling program.